

# Chapter 1. Introduction

The State Water Resources Control Board (SWRCB) establishes water quality objectives and monitoring plans to protect a variety of the beneficial uses of water within the upper San Francisco Estuary (SFE). The SWRCB has allocated responsibilities to meet or help meet most of these objectives through a series of water right decisions issued to the Department of Water Resources (DWR) and the United States Bureau of Reclamation (USBR) as a condition for operating the State Water Project (SWP) and Central Valley Project (CVP), respectively. These decisions require the two water projects to maintain minimum outflows, limit water diversions, and maintain salinity levels below designated levels at specific locations in the Delta. These decisions also mandate that DWR and USBR conduct a comprehensive monitoring program to determine compliance with terms of the decisions, and report the findings to the SWRCB. Water quality objectives in place since August 1978 were issued by Water Right Decision 1485 (D-1485) (SWRCB 1978). These objectives were revised by Water Right Decision 1641 (D-1641) (SWRCB 1999), which was adopted by the SWRCB in December 1999.

Monitoring data collected since the inception of the Environmental Monitoring Program (EMP) has been stored and managed in a variety of data management systems. Data for water quality and the density and composition of phytoplankton and benthic communities at sites throughout the upper San Francisco Estuary were originally uploaded, stored, and made available to users using the STORET data management system managed by the U.S. Environmental Protection Agency. Data from 1975 to 2001 are currently available at the Interagency Ecological Program (IEP) website at [www.iep.water.ca.gov/](http://www.iep.water.ca.gov/). EMP water quality data can be found on the IEP website in a stand-alone format through files from the IEP relational database. The IEP relational database file provides data collected by a variety of public sector agencies in a combined format. Additional information concerning the availability of compliance monitoring data can be obtained by contacting DWR directly<sup>1</sup>.

This report, titled *Water Quality Conditions in the Sacramento-San Joaquin Delta and Suisun and San Pablo Bays from 1997 Through 2000*, summarizes the findings of the EMP from calendar year 1997 through calendar year 2000, and is submitted to the SWRCB to fulfill the reporting requirements of D-1485 and D-1641. The water quality, benthic, phytoplankton, zooplankton, and special study components of the EMP are discussed in separate chapters. The major patterns and trends demonstrated by the water quality and biological data within and between years are displayed in summary plots and tables and briefly described in the supporting text of each chapter.

Because the hydrology of the upper San Francisco Estuary is strongly influenced by seasonal precipitation and inflows, changes in hydrologic conditions have historically been described using water years. A water year extends from October 1 of one calendar year through September 30 of the following calendar year. A water year is numbered using the calendar year in which the water year ends. For example, the period from October 1, 1999 through September 30, 2000, is identified as water year 2000.

In this report, water years are used to describe conditions within the upper San Francisco Estuary when appropriate. The 1997 through 2000 calendar year reporting period covers most (January through September) of water year 1997; all of water years 1998, 1999, and 2000; and the first quarter (October through December) of water year 2001. Figure 1-1 shows a map of all of the Bay-Delta Section monitoring sites.

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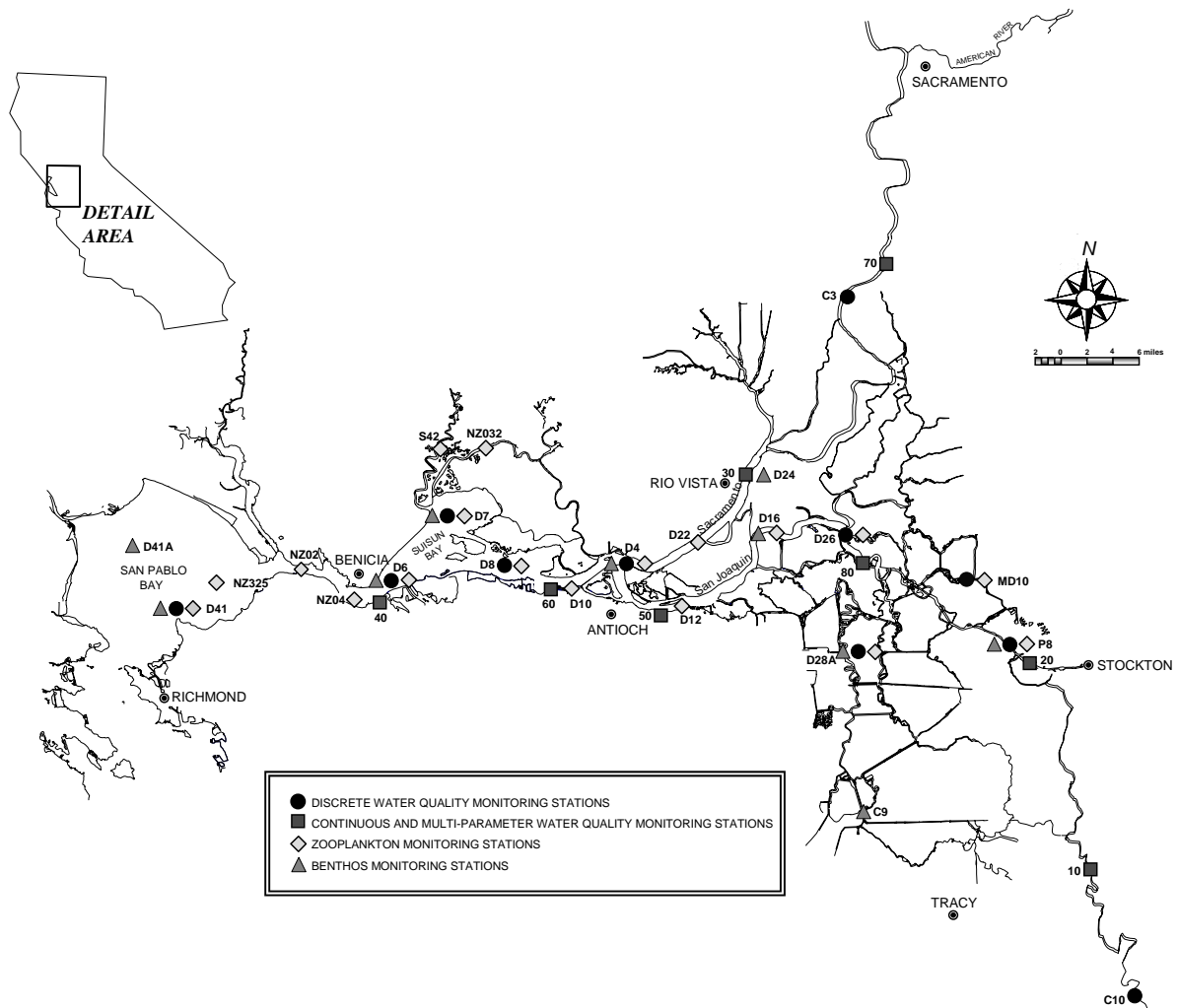


Figure 1-1 Map of all Bay-Delta Section monitoring sites